



HR&A
Analyze. Advise. Act.

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE

ECONOMIC IMPACT REPORT

OCTOBER 2017

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EXECUTIVE SUMMARY

OVERVIEW OF THE ECONOMIC IMPACT REPORT

The University of California, Riverside (UCR or the University) is a **critical economic asset** and an important driver of growth in the Inland Empire and the State of California. From innovations that launch new industries to academic programs which enable students to climb the rungs of economic opportunity, UCR's impact extends well beyond the borders of its campus.

This Economic Impact Report, prepared by HR&A Advisors, Inc. (HR&A), highlights the University's impact in qualitative and quantitative terms, and is organized to demonstrate UCR's strengths as an institution in the following ways:

- **A growing university** in both size and impact;
- **A commitment to excellence** in research, academics and student outcomes;
- **An economic powerhouse** for the city, region, state and beyond; and
- **An active partner** in the success of the community.



A GROWING UNIVERSITY

As a premier research institution in one of the fastest growing metropolitan areas in the United States, the University of California, Riverside plays a rapidly expanding role **educating the region's workforce**, while contributing to nearby communities' cultural vitality. Building on nationally recognized academic and research strengths, the University has embarked on a "Path to Preeminence" plan, which has already begun increasing enrollment by **thousands of students** and hundreds of **new ladder rank faculty** by 2020.

To accommodate this growth, the University has recently completed a physical master plan study, which identifies **1.5 million square feet** of academic and support space. Development plans focus on accommodating more students in on-campus housing, as well as multidisciplinary research facilities and collaboration areas. In recent years, the University has **increasingly expanded its resources** that impact the greater community, including School of Medicine clinical and outpatient facilities and start-up incubator space for new companies spun off from UCR research.



+300

NEW FACULTY

+1.5 M SF

NEW FACILITIES PLANNED

A COMMITMENT TO EXCELLENCE

The University of California, Riverside is home to one of the most **diverse student bodies** of any top-tier research university in the United States from racial, ethnic and socioeconomic perspectives. Offering a robust set of undergraduate, master's and doctoral programs, the University provides **a unique economic opportunity for all its students**. Unlike many other colleges and universities, UCR has increased graduation rates with little or no difference between ethnic, racial, or socioeconomic groups, and improved economic mobility for its graduates.

UCR's student population is offered a world-class education by **distinguished faculty** which have received numerous prestigious awards, fellowships, recognitions and appointments to professional societies in recent years. Faculty and research strengths have directly driven a **dramatic increase in outside research funding** since 2012, and funding is expected to grow as the University continues to increase interdisciplinary research that fosters collaboration and innovation.

¹ U.S. News and World Report (2017)

33rd

MOST DIVERSE UNIVERSITY
IN THE U.S.¹

11,472

FIRST GENERATION COLLEGE
STUDENTS

43%

GROWTH IN FEDERAL
RESEARCH FUNDING
SINCE 2012

AN ECONOMIC POWERHOUSE

The University of California, Riverside had a **\$2.7 billion economic impact** on the United States economy during Fiscal Year 2015-2016 (FY 15-16), as spending by the University, its employees, retirees, students, and visitors created direct and indirect financial impacts across the country. The University is responsible for **\$1.9 billion in statewide annual economic activity**, \$1.4 billion of which occurs in the Inland Empire.

The University's economic impact is not just limited to quantifiable effects associated with direct spending and job creation. UCR's **collaboration with industry** spurs innovation, which in turn creates and preserves industries and jobs and benefits consumers. One of the University's most visible efforts includes the College of Engineering-Center for Environmental Research and Technology (**CE-CERT**), where researchers are on the cutting-edge of applied research in sustainability and which drove the relocation of the California Air Resources Board research facility to Riverside. UCR has also committed to fuel local entrepreneurship through **business incubators** and **a venture fund**.

\$1.9 B

TOTAL UCR ECONOMIC IMPACT
ON STATE OF CALIFORNIA

20,700

STATEWIDE JOBS

\$905 M

EMPLOYEE COMPENSATION

A REGIONAL PARTNER

The extensive resources that the University offers are not limited to its undergraduate and graduate student populations. **UCR Extension** serves students of all ages with continuing education, including to support local workforce training needs, to educate international students, and to provide intellectual enrichment for community members. The University's ARTSblock facility and Botanic Gardens expose thousands of visitors to cultural and nature experiences. **K-12 partnerships**, which will soon include co-locating a STEM school on UCR's campus, expose local students to advanced career opportunities in science, technology, and health. Similarly, a number of **community service programs** enable students to assist local youth, seniors and disadvantaged residents.

Since 2013, UCR has, through its **School of Medicine**, developed partnerships that address local health care needs. Today, over 200 medical students are training in hospitals across the Inland Empire, while **UCR Health** is expanding access to healthcare regionally and investing in facilities within Riverside.

200+

UCR MEDICAL STUDENTS TRAINING
IN THE INLAND EMPIRE

29,000

UCR EXTENSION STUDENTS IN
FISCAL YEAR 15-16

K-12

PARTNERSHIPS EXPOSE RIVERSIDE
YOUTH TO EMERGING STEM CAREERS



A GROWING UNIVERSITY

GROWTH: The University of California, Riverside has expanded exponentially since opening in 1907 as a Citrus Experiment Station.

The University of California, Riverside is one of 10 campuses in the prestigious University of California (UC) system and the **only comprehensive research university located in Inland Southern California.**

Located on nearly 1,200 acres, the campus is often called a “**living laboratory**” for the exploration of critical local and global issues. The University’s history is rooted in research, teaching and public engagement.

UC Riverside has been widely recognized for its **distinct assets and strengths:** its commitment to diversity, inclusivity, and access; excellence in research; and support to the surrounding region. As it continues to grow in size, UCR will not only **invest in programs and facilities** to expand its status as a leader in cutting-edge research, but will work to ensure that the assets and strengths that set the campus apart are maintained.

1907

California State legislature establishes the Riverside Citrus Experiment Station

1954

UCR’s first undergraduate class enters the College of Letters and Science

1960

The College of Agriculture is founded, adding UCR’s graduate division

1967

First Bachelor of Science degree is offered

1989

First class enters the Bourns College of Engineering

2005

The UCR Palm Desert Center opens

2013

The School of Medicine opens

2015

The School of Public Policy opens

UCR reaches 100,000 living alumni

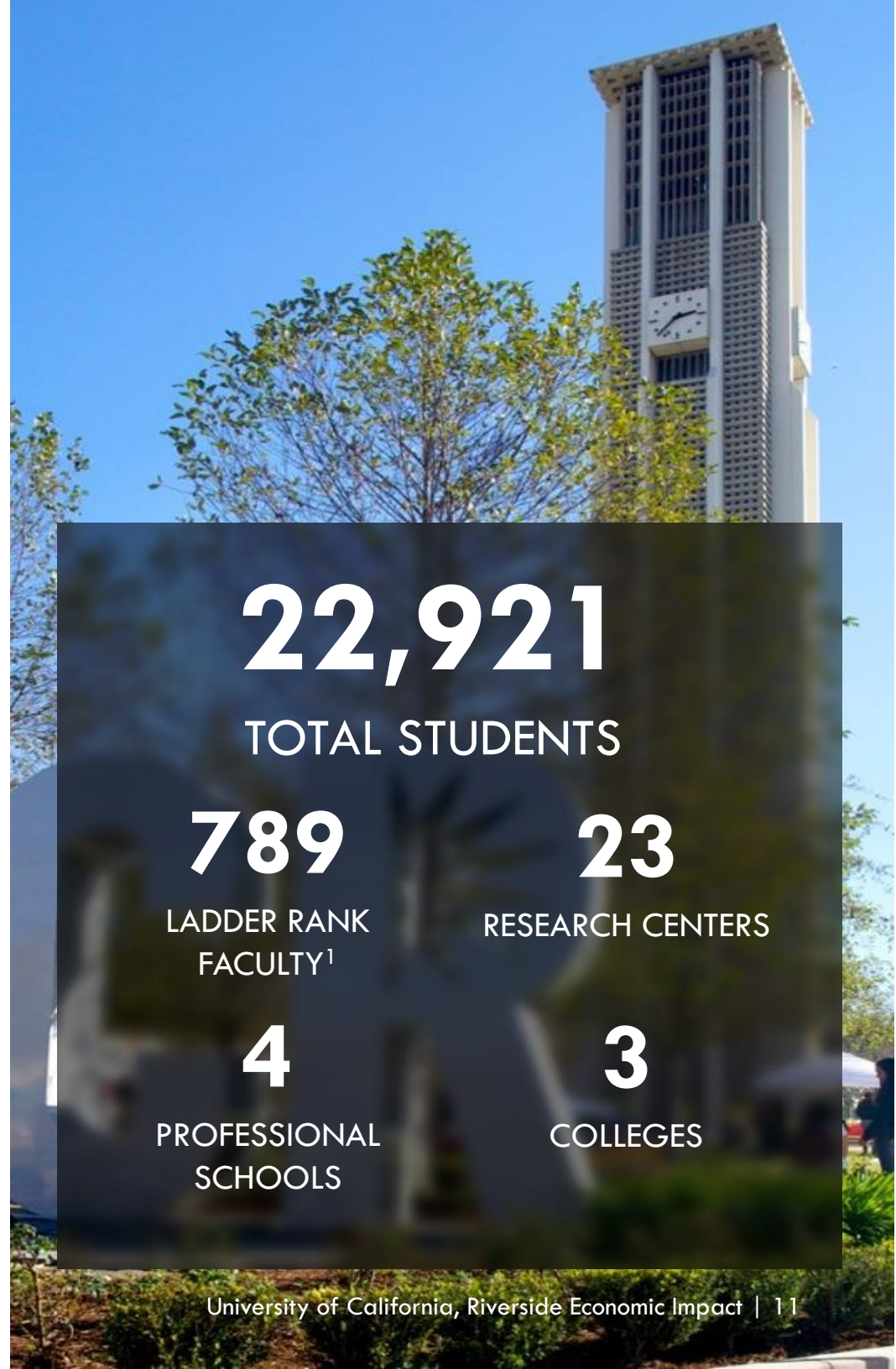
GROWTH: UC Riverside has evolved into a world-class university, with a range of academic programs and exceptional faculty.

UCR reached **record size in the Fall of 2016**, with 22,921 total students, comprised of 19,799 undergraduates and 3,122 graduate students. The University now has 101 bachelor's degree programs, 52 master's degree programs, 42 doctoral programs and 13 teaching and administrative credential programs.

The University is home to **four professional schools**: the School of Business, Graduate School of Education and the new Schools of Medicine and Public Policy.

UCR's **three colleges** offer a wide range of academic and research subjects: The Bourns College of Engineering, with nine departments; The College of Humanities, Arts & Social Science, with 20 departments; and the College of Natural & Agricultural Sciences, with 13 departments. The University's colleges and schools collaborate through 23 interdisciplinary research centers.

¹ As of October 2016. UCR Office of the Provost & Executive Vice Chancellor
HR&A Advisors, Inc.



22,921

TOTAL STUDENTS

789

LADDER RANK
FACULTY¹

23

RESEARCH CENTERS

4

PROFESSIONAL
SCHOOLS

3

COLLEGES

GROWTH: UCR plays an important role in the Inland Empire, one of the most rapidly expanding regions in California and the United States.

Economic growth in the Inland Empire has outpaced nearly all other regions in California in recent years; business activity, for instance, has experienced an **18 percent increase over the past five years.**¹ UCR plays a role in preparing the Inland Empire’s workforce, which added 41,000 new jobs in 2016 alone.² However, much of this recent growth has been concentrated in low-wage retail, logistics, food services and other service sectors. The University will **play a critical role** in developing a more diverse and dynamic regional economy.

Regional population growth has been particularly strong, especially among millennials. The Riverside metropolitan area had the **highest growth in millennials of any region in the country** from 2010 to 2015.⁴ A greater number of graduates are also choosing to stay in Riverside, which has become an increasingly attractive place to live.

¹ University of California, Riverside School of Business Administration

² UCR Center for Economic Forecasting and Development

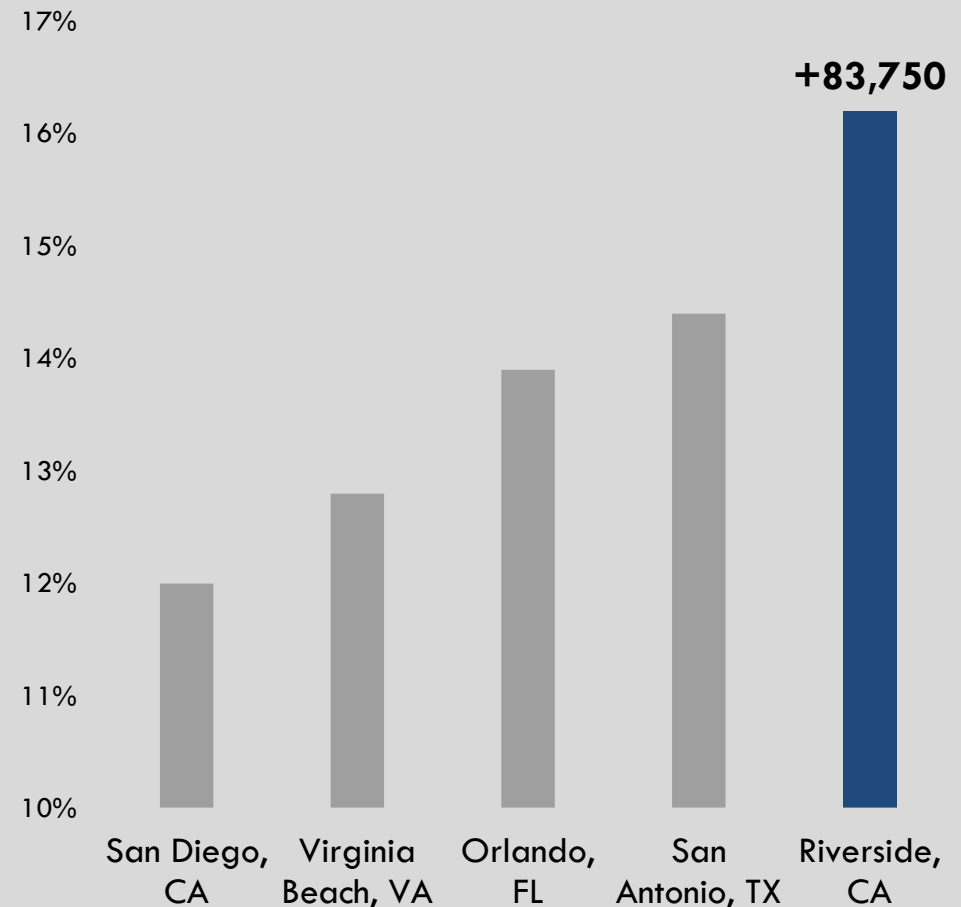
³ SCAG

⁴ Time Magazine (2017), “The Top 25 Suburbs Where Millennials Are Moving”

RIVERSIDE COUNTY PROJECTED GROWTH
2016-2040³

+890K **+550K**
RESIDENTS EMPLOYEES

**MILLENNIAL POPULATION GROWTH RATE:
TOP FIVE METRO AREAS, 2010-2015⁴**



GROWTH: The *UCR 2020: Path to Preeminence Plan* sets the course for both physical and academic expansion.

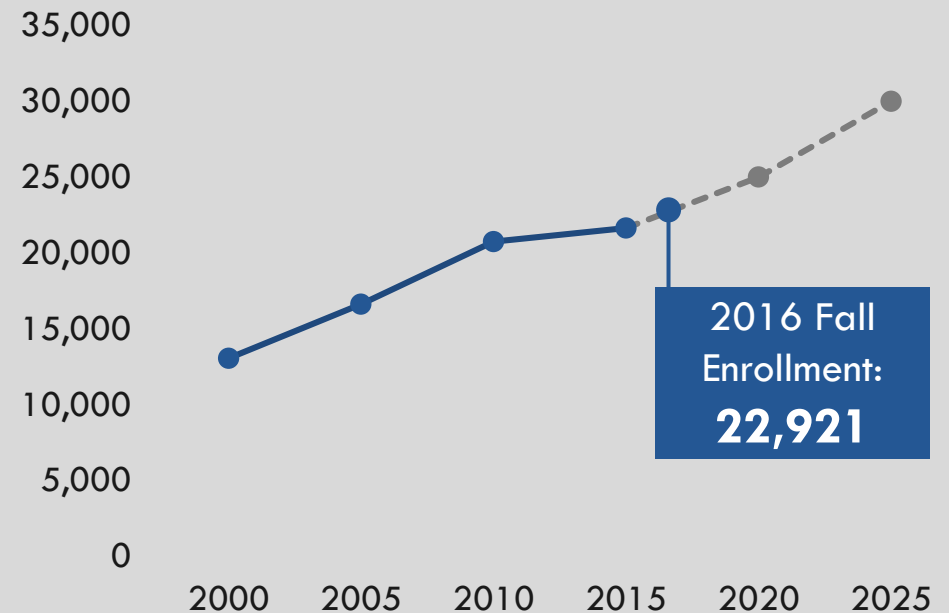
UCR has articulated goals to increase academic excellence, access, diversity and engagement. The University has invested considerable resources in achieving these objectives, the implementation of which will include a significant increase in the number of **students and faculty** by 2025.¹

The University **plans to match this growth in population with increased physical space and infrastructure.** As part of the implementation of the UCR 2016 Physical Master Plan Study, the University is investing in housing, research and event space.

Other plans include an extensive development on North campus. The project will include a significant expansion of on campus student housing, as well as dining, retail and recreation facilities.²

¹ University of California, Riverside
² UCR 2016 Physical Master Plan Study

UCR ENROLLMENT



UCR is investing heavily in its faculty, with more than 300 new hires planned by 2020.



UCR is building research space to support new and existing faculty and students.

+1
SCHOOL OF
MEDICINE

+2
NEW RESEARCH
BUILDINGS

+250,000
SQUARE FEET
RESEARCH SPACE



2016 PHYSICAL MASTER PLAN STUDY¹

1.5M

SF OF NEW ACADEMIC AND SUPPORT SPACE

NEW MOBILITY HUB

4,000+

NEW STUDENT BEDS

NEW GREENHOUSES

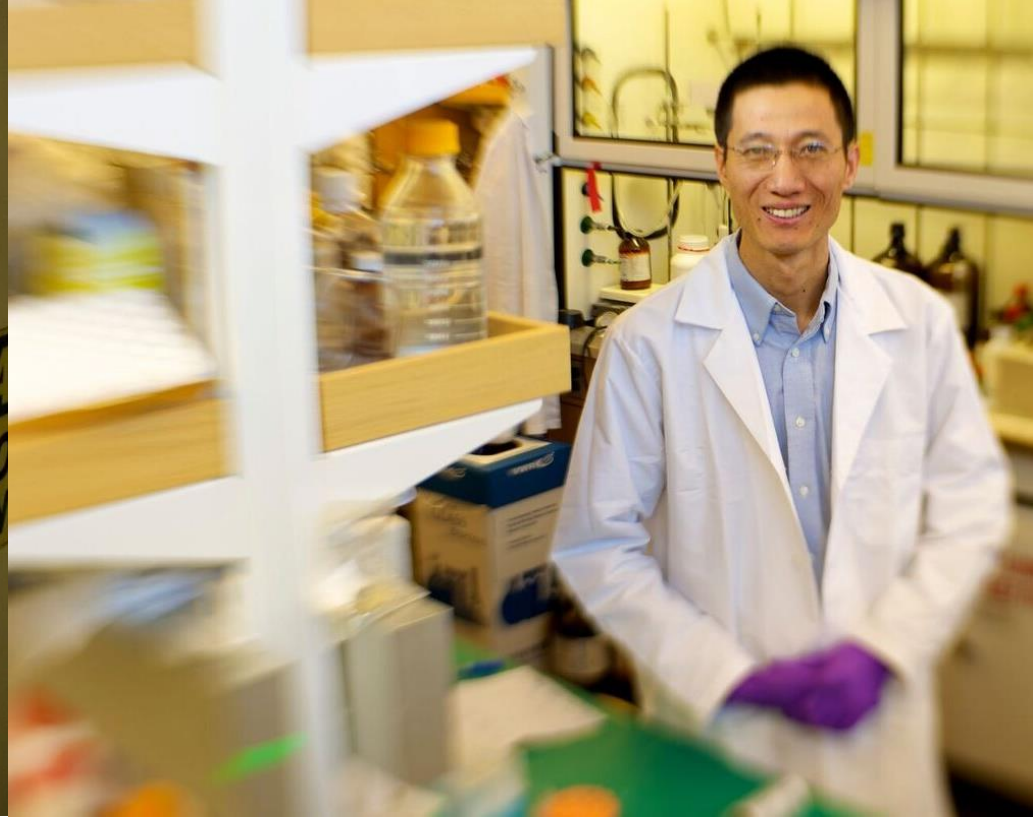
GROWTH: UC Riverside is investing in the future, with ambitious plans for physical expansion.

The University has initiated construction of the first of two **Multidisciplinary Research Buildings**, which will include labs for more than 50 faculty members; the second building and other planned campus expansions will accommodate additional faculty and further expand research and teaching capabilities.² These expansions will add **250,000 square feet of new research space** and will bring the campus from 730 to about 1,030 square feet of research space per UCR faculty member.

In 2016, UCR's **Physical Master Plan Study** established a vision for the physical environment of the campus to accommodate rapid growth. The University **plans to add over 4,000 student beds** to maintain its current ratio of resident students to the overall campus population. UCR also intends to add up to **1.5 million additional square feet of new academic and support space**.

¹ UCR 2016 Physical Master Plan Study

² Press Enterprise (2015), "UC Riverside: Transformative expansion in the works"



GROWTH: UC Riverside has been pursuing a strategic hiring initiative to significantly increase faculty expertise in targeted areas.

In 2013, the University embarked on a hiring initiative, with a goal to add 300 new faculty by 2020, including 250 senate faculty and 50 clinical faculty. As a part of this initiative, UCR plans to hire 139 faculty in targeted clusters, including 90 completed and pending hires to date in 24 clusters across all seven of UCR's colleges and schools. Twenty-two percent of the new faculty hires in 2015-2016 were **underrepresented minorities**.

¹ As of July 2017. UCR Office of the Provost & Executive Vice Chancellor
HR&A Advisors, Inc.

STRATEGIC PRIORITY AREA	NEW HIRES ¹
Mind and Body	16
Revitalizing Communities	13
Innovation Incubator	12
Genomics to Harvest	8
Next Gen Technologies	7
Renewable Nature	7
New Voices and Visions	5

GROWTH: UCR has expanded the resources it provides to Riverside and the Inland Empire.

As UC Riverside grows, the community resources it offers provide opportunities for business growth to the region as well. Notably, Riverside ExCITE is an **accelerator developed by UCR and its partners in 2014** to catalyze regional start-up businesses. In 2016, the University launched EPIC, the Entrepreneurial Proof of Concept and Innovation Center. Available to students, faculty and community members, this partnership with Riverside County provides critical services that include coursework, mentorship and access to investors.

UCR also provides educational and training resources to community members of all ages through UCR Extension, which **offers professional and training programs to 29,000 students annually.**¹ UCR Palm Desert, which opened in 2005, **extends the reach of UCR to the Coachella Valley**, offering a Master of Fine Arts degree, continuing education courses and a Future Physician Leaders program.

¹ University of California, Riverside



UCR EXTENSION



EPIC



UCR PALM DESERT



A COMMITMENT TO EXCELLENCE

EXCELLENCE: UCR has continued its strong commitment to racial and ethnic diversity, expanding educational access to students of all backgrounds.

UC Riverside is home to a notably diverse student population, with nearly 63% of undergraduates who are **first-generation college students**.¹ In Fall 2016, 54 percent of incoming students at UC Riverside were **underrepresented minorities**, compared with 37 percent across the entire UC system.² In 2008, UC Riverside was the first in the UC system to receive a Federal designation as a **Hispanic-Serving Institution**, which has enabled the University to receive funding to support first-generation, low-income Hispanic students.⁴

The University is a **national leader in African-American student graduation rates**. Nationally, African-American graduation rates lag behind those of white students by about 22 percentage points, but UCR's African-American students graduate at a rate 1.7 percentage points higher than white students.⁵

¹ University of California Fall Enrollment Headcounts (2016)

² University of California Office of the President (2016)

³ U.S. News and World Report (2017)

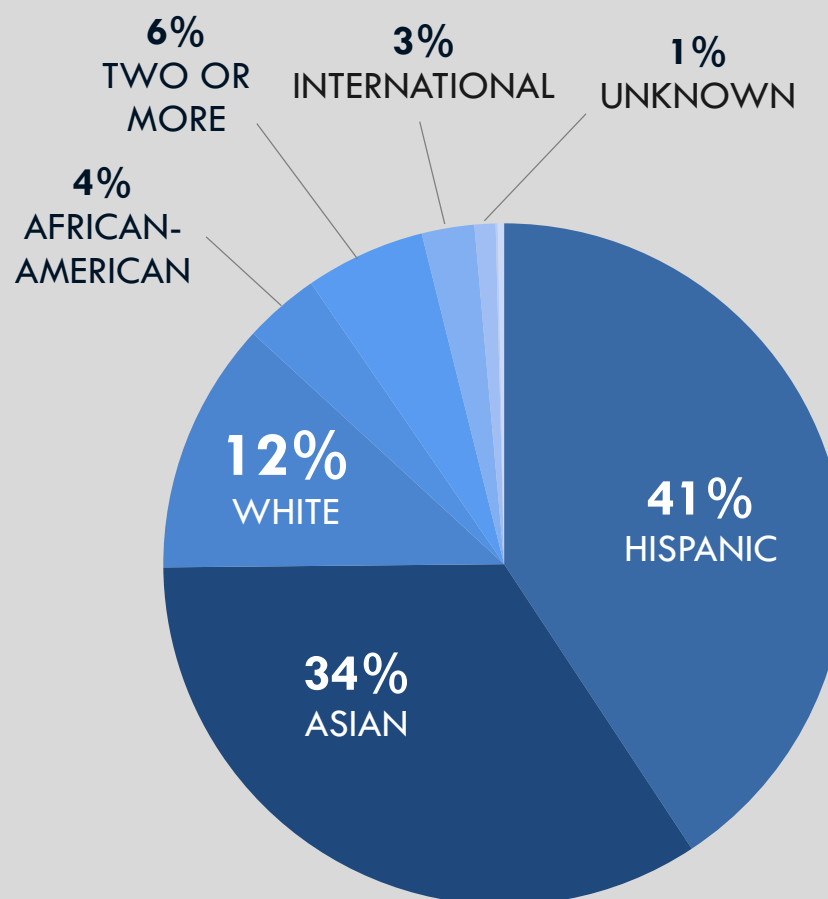
⁴ LA Times (2016), "California's shifting demographics are reshaping UC student body"

⁵ The Education Trust (2017), "A Look at Black Student Success."

33rd

MOST DIVERSE UNIVERSITY IN THE NATION³

UCR UNDERGRADUATE STUDENT DIVERSITY – FALL 2016



EXCELLENCE: The University is unique in its socioeconomic diversity and provides the opportunity for economic mobility to its students.

UCR's six-year graduation rate for all students is currently 73 percent, up 7 percentage points from four years earlier. In recognition of these gains, UCR recently won **the 2016 Project Degree Completion Award for innovation in boosting graduation rates.**¹

UCR stands out among selective institutions for its economic mobility impact, ranking **20th out of 369 of "selective" public universities** in a New York Times analysis for its share of students who moved from the bottom fifth of incomes to the top fifth as adults. The University ranked 45th out of 369 in the likelihood a student will advance two more income quintiles.²



UCR students' economic mobility is among the highest in California.

30%

OF UCR STUDENTS MOVED UP TWO OR MORE INCOME QUINTILES²

41%

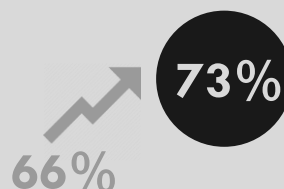
OF UCR STUDENTS WHO WERE FROM THE BOTTOM FIFTH OF INCOMES AS STUDENTS AND MOVED TO THE TOP FIFTH AS ADULTS²



UCR graduation rates continue to rise.

72%

PELL GRANT RECIPIENTS WHO GRADUATE IN SIX YEARS¹

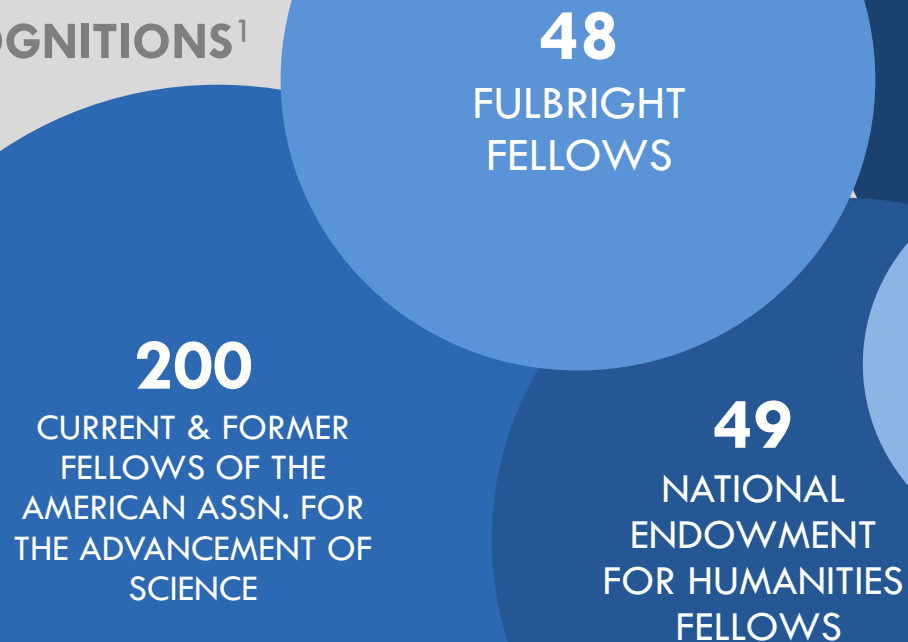


SIX-YEAR GRADUATION RATES INCREASED SIGNIFICANTLY FROM 2011-2015¹

¹ Association of Public and Land Grant Universities

² New York Times (2017), The Equality of Opportunity Project

FACULTY RECOGNITIONS¹



19
GUGGENHEIM
FELLOWS

2012-2016 STUDENT RECOGNITIONS¹



EXCELLENCE: UCR has achieved significant distinction for the exceptional quality of its faculty and graduate students, as demonstrated by recent awards.

UCR is recognized nationally for its faculty's research. The National Science Foundation's (NSF) Faculty Early Career Development Program (CAREER) offers prestigious awards to scholars who integrate research and education. Currently, **UCR ranks first in the UC System** and third in the State of California for most active CAREER awards, trailing only Stanford University and the University of Southern California.²

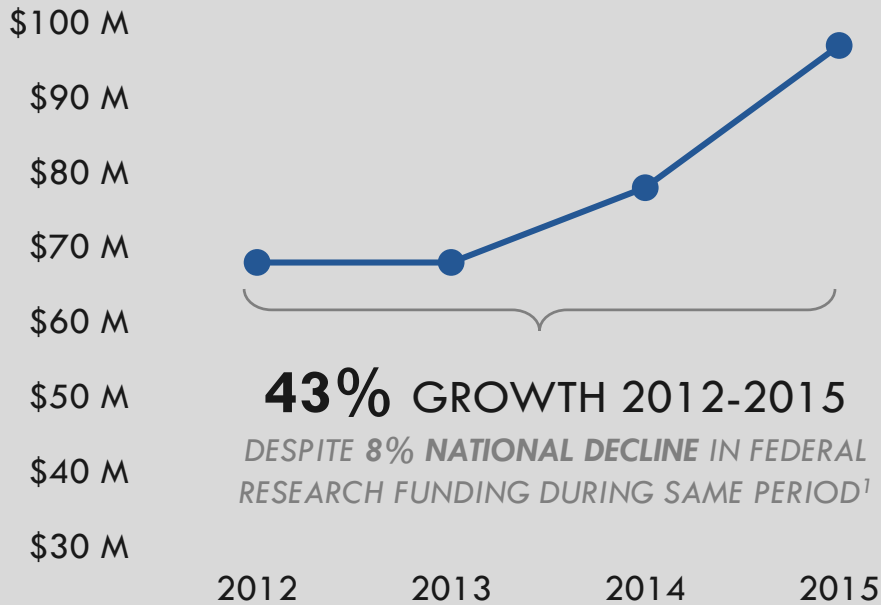
Key recent faculty recognition includes:

- Geneticist Susan Wessler, named to the Royal Society for her work on mobile DNAs (2017).
- Professor Julia Bailey-Serres, awarded the Stephen Hales Prize from the American Society of Plant Biology (2017).
- CE-CERT researcher Charles Cai, named as one of Forbes Magazine's "30 Under 30" for research in sustainable energy (2017).

¹ University of California, Riverside

² National Science Foundation

FEDERAL RESEARCH FUNDING¹



The number of doctorates earned by UCR students increased by 65% between 2006 and 2015.²



The number of research awards has increased at UCR between 2012 and 2016.³

+13%
 TOTAL GRANT AWARDS

+44%
 AWARDS FROM INDUSTRY

EXCELLENCE: UC Riverside's research strengths have been rewarded with increases in research funding and rankings.

As a major public research university, UCR is an incubator of innovative thinking and real-world solutions. The University continues to gain increased recognition for the quantity and quality of its research. Accounting for roughly 13 percent of the University's revenue, UCR has increased both the number of awards and the amounts received in recent years.¹

The total number of contracts and grant increased by 13 percent from 2012-2016; notably, UCR's awards from UC grew by 51%.³ This growth has helped to support the University's academic offerings: UCR was ranked number 91 by the National Science Foundation (out of 416 universities), for earned doctorates in 2006; in 2015, the University was ranked number 69.⁴

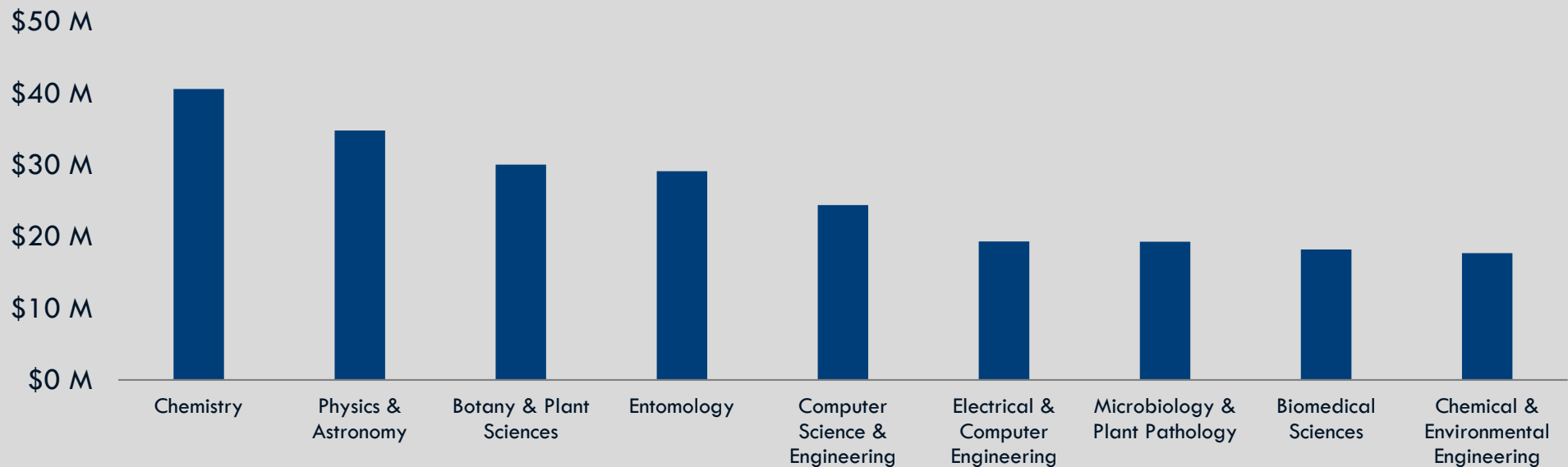
¹ University of California, Riverside, Chancellor's Office 2016 Annual Budget Presentation.

² UC Office of the President.

³ UCR Research and Economic Development, Sponsored Programs Administration Annual Report 2016.

⁴ National Science Foundation

FEDERAL RESEARCH AWARDS BY UCR DEPARTMENT, 2012-2016¹



EXCELLENCE: Many UCR Departments have received millions in Federal research funding.

Between 2012 and 2016, UCR received **\$415 million** in Federal funds. UCR's long-standing research strengths in natural and agricultural sciences consistently win Federal grants, especially as it pertains to entomology and citrus. Departments from the Bourns College of Engineering have also been particularly effective attracting Federal funds, as have researchers from the School of Medicine for clinical education.

PRINCIPAL INVESTIGATOR	PRIMARY AFFILIATION	FEDERAL FUNDING, FY 16-17
CAROLINE ROPER	Plant Pathology	\$5.6 M
OMAR AKBARI	Entomology	\$4.6 M
JING SHI	Physics & Astronomy	\$3.1 M
EAMONN KEOGH	Computer Science	\$2.8 M
MATTHEW BARTH	CE-CERT	\$2.4 M

¹ University of California, Riverside



CE-CERT



AGRICULTURE EXPERIMENT STATION



EPIC

EXCELLENCE: UC Riverside’s recent expansion has included developing several interdisciplinary research centers that foster collaboration and creative activity.

The University is building on its existing strengths at core research centers like the Center for Environmental Research & Technology (CE-CERT) **with key investments to expand its research capabilities.** In 2017, UCR, in partnership with the Southern California Gas Company, developed the Center for Renewable Natural Gas, **the first academic establishment** in the U.S. dedicated to the study of renewable gas technologies.

Other recent interdisciplinary research centers include:

- EDGE (Environmental Dynamics and GeoEcology) Institute
- High-Performing Computer Center (HPCC)
- California Agriculture and Food Enterprise (CAFÉ)
- Center for Broadband Policy and Digital Literacy
- Center for Advanced Neuroimaging (CAN)
- Center for Spatial Science (CSS)



EXCELLENCE: UC Riverside’s School of Public Policy (SPP) offers a range of professional opportunities for its students.

UCR’s School of Public Policy has partnered with many local and regional public agencies to **provide its students with internship experiences** at cities, counties, law firms, transit agencies, and councils of government, among others.

In addition, the Western Riverside Council of Governments (WRCOG) Public Service Fellowship Program offers a **nine-month professional development opportunity, with full-time paid employment and hands-on public policy work experience** in local and regional agencies in Western Riverside County.

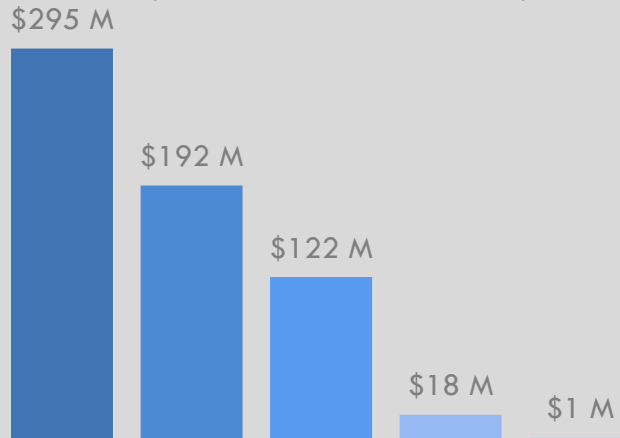


AN ECONOMIC POWERHOUSE

DIRECT ECONOMIC IMPACTS – UNIVERSITY OPERATIONS¹

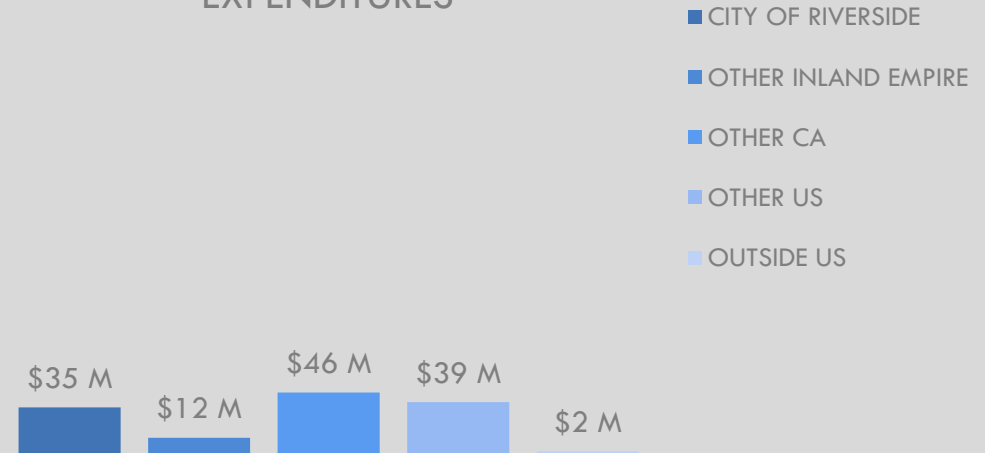
\$628 M

UCR LABOR EXPENDITURES
(PAYROLL & BENEFITS)



\$135 M

UCR NON-LABOR
EXPENDITURES



POWERHOUSE: UCR directly spent **\$763 million** on labor and expenditures in FY 15-16.

\$628 million of UCR’s annual operating budget during FY 15-16 was paid in wages and benefits to its current employees and in the form of pension payments to its retirees. For active employees, over 95 percent of wages and benefits went to support academic and career salaries.

The University’s **\$135 million** in non-labor expenditures are distributed relatively evenly across the different

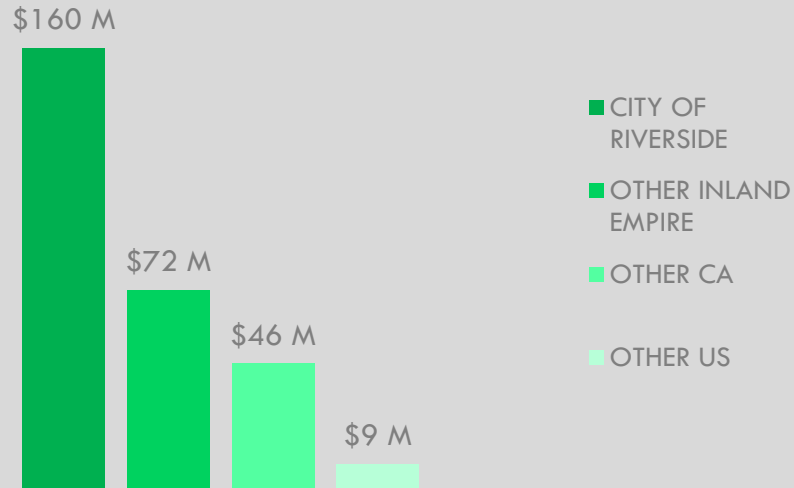
geographies, as UCR purchases specialized goods to fulfill the school’s academic mission and day-to-day operations. Non-labor expenditures also include nearly **\$24 million** in expenditures on campus construction projects. While this economic impact analysis quantifies the impact of the \$24 million spent during FY 15-16, between 2014-2016, UCR averaged nearly \$70 million in annual construction expenditures.

¹ Labor expenditures include \$79.4 million in pension payments to retired employees. Non-labor expenditures include \$23.5 million in construction expenditures incurred

during 2015-2016, which were assumed to directly occur within the City of Riverside.

DIRECT ECONOMIC IMPACTS STUDENT & VISITOR SPENDING¹

\$287 M



POWERHOUSE: Students and visitors contributed an additional **\$287 million**.

Student and visitor spending impacts are highly local, as these populations tend to shop at local businesses close to campus. As a result, **spending in the City of Riverside makes up 55 percent of overall student and visitor impacts.**

¹ Direct inputs referenced do not completely align with IMPLAN “direct” outputs, which assumes a share of import substitution from outside of the U.S. Visitor direct impacts are assumed to take place in the City of Riverside. HR&A accounted for substitution for “net new” visitor impacts based on location of visitor residence.

² Estimate provided by UCR Office Research and Economic Development. Does not include attendance at campus events by faculty, staff, or students.

245,000

ESTIMATED VISITORS TO UCR
DURING FY 15-16²

44,000

VISITORS TO ATHLETIC EVENTS
IN FY 15-16

POWERHOUSE: In total, spending by UCR, its students and visitors created a **\$2.71 billion impact** on the U.S. economy during FY 15-16.

Direct spending had a significant multiplier effect on the national economy, spurring an additional **\$311 million** in “indirect” impacts (businesses supplying direct activities) and **\$1.55 billion** in “induced” impacts (household spending due to income received from direct and indirect activities), leading to a total impact of \$2.71 billion.

Over two-thirds of the total impact, or **\$1.92 billion**, occurs in California, with nearly half, or **\$1.35 billion**, in the Inland Empire.

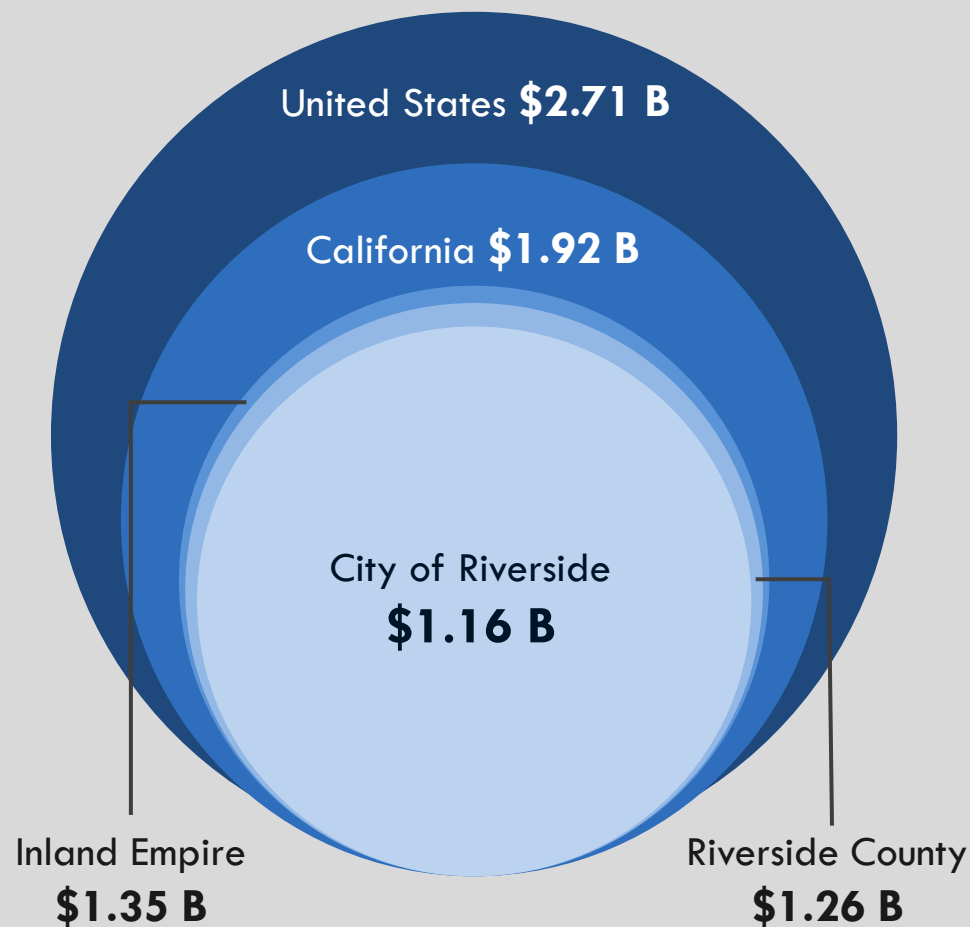
GEOGRAPHY ²	DIRECT	INDIRECT	INDUCED	TOTAL
CITY OF RIVERSIDE	\$781 M	\$44 M	\$334 M	\$1.16 B
RIVERSIDE COUNTY	\$802 M	\$60 M	\$402 M	\$1.26 B
INLAND EMPIRE	\$824 M	\$69 M	\$457 M	\$1.35 B
STATE OF CALIFORNIA	\$851 M	\$173 M	\$891 M	\$1.92 B
UNITED STATES	\$853 M	\$311 M	\$1.55 M	\$2.71 B

¹ Aligned with standard economic impact analysis convention, HR&A included the University’s direct expenditures (\$682 million in 2015-2016) as part of the overall impact for each geography. Direct inputs referenced do not completely align with IMPLAN “direct” outputs, which estimates a share of leakage to account for import substitution from outside of the U.S.

² Geographies are inclusive of sub-geography impacts (e.g., Inland Empire results include the impacts taking place in Riverside County and the City of Riverside).

**\$2.71
BILLION**

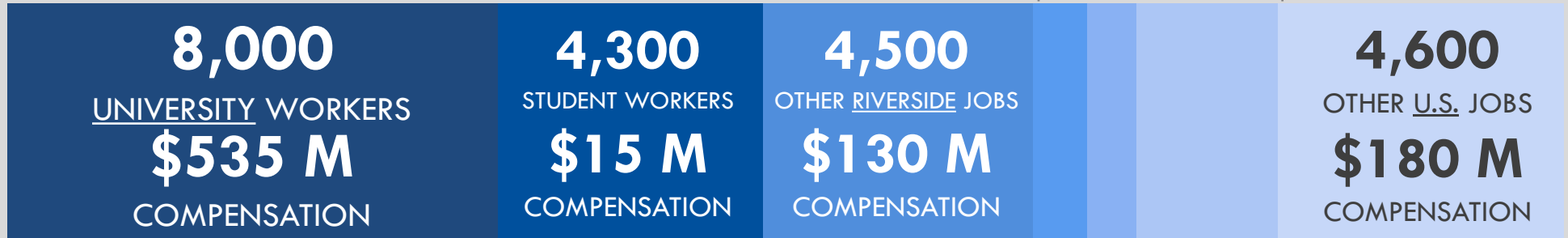
UCR’S ANNUAL IMPACT
ON THE U.S. ECONOMY¹
(2017 \$)



25,000+
NATIONWIDE JOBS

CREATED BY UCR
ON-SITE AND OFF-
SITE SPENDING

	JOB	COMP.
OTHER RIVERSIDE CO.	850	\$16 M
OTHER INLAND EMPIRE	760	\$26 M
OTHER CALIFORNIA	2,250	\$177 M



POWERHOUSE: Over **25,000 jobs** across the United States were created by UCR-related activity.

During FY 15-16, UCR’s 12,400 full- and part-time employees earned **\$550 million in wages and benefits**.^{1,2} When added to the other direct, indirect, and induced jobs created by non-labor University expenditures and student and visitor spending, UCR was responsible for **12,500 total jobs in Riverside**, or approximately **9% of all primary jobs** in the City, excluding the University’s roughly 4,300 student workers.³

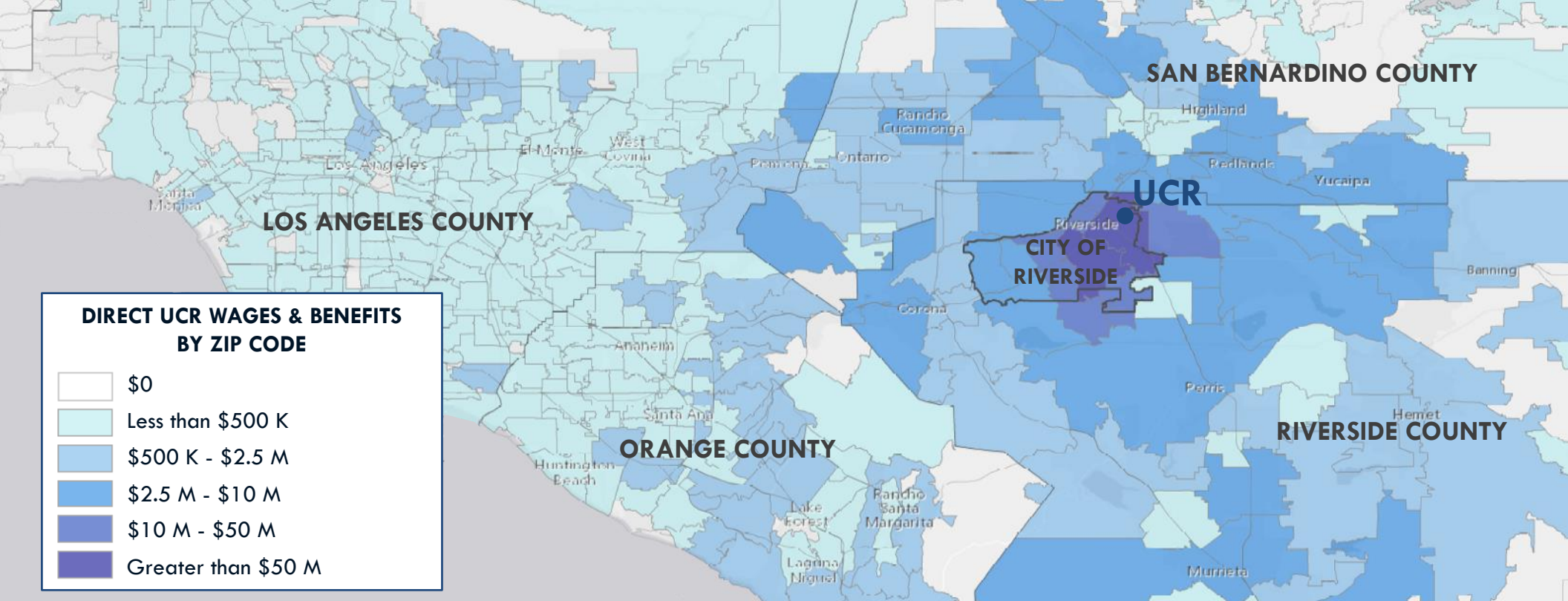
¹ Jobs values represent a head count of full- and part-time employment created throughout the economy, including approximately 4,300 student workers which the University defines as “casual/restricted” workers.

On average, full-time workers at UCR earned \$68,850 in wages, 49% higher than the average wage for full-time workers in the City of Riverside.⁴ UCR’s impact does not end at the City’s borders; **seven percent of jobs associated with UCR were located elsewhere in the Inland Empire**, in addition to nine percent in other parts of California and 19 percent elsewhere in the Country.

² Employee compensation includes both wages and benefits paid to employees.

³ U.S. Census Bureau, LEHD On The Map.

⁴ Emsi. Assumes full-time employment at 40 hours per week for 50 weeks per year.



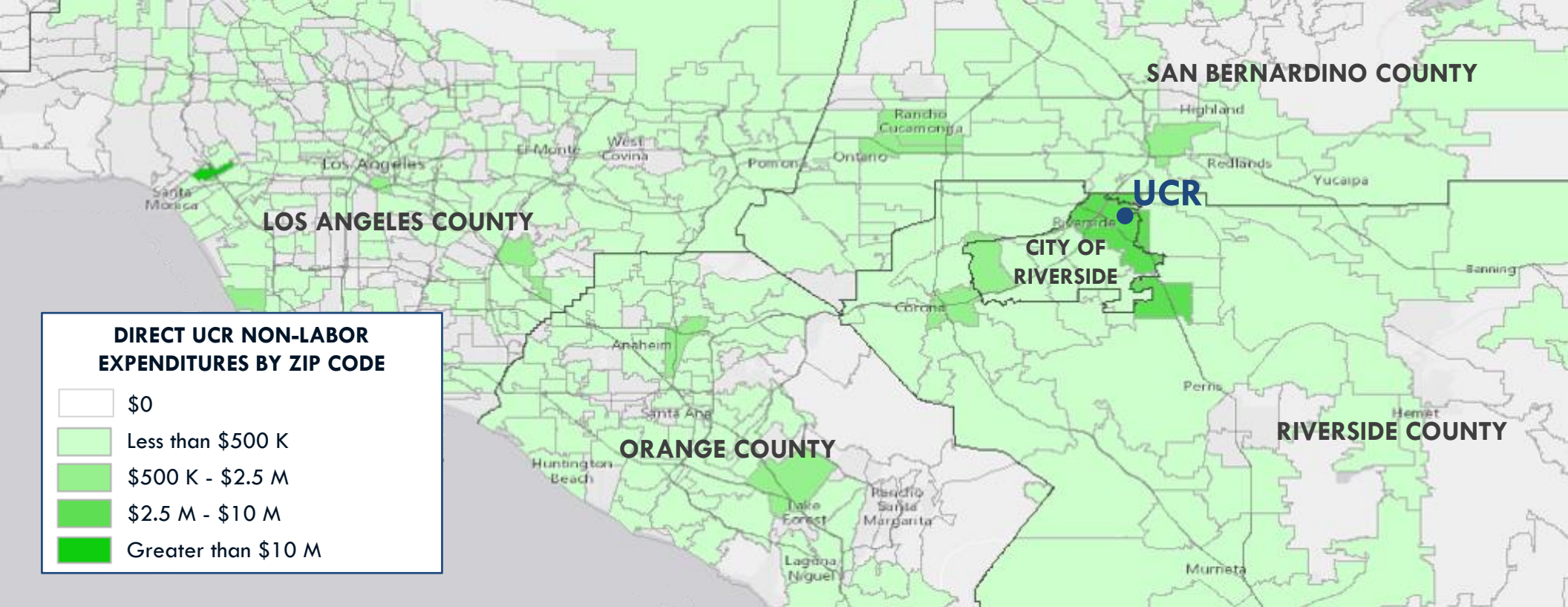
POWERHOUSE: Though University employees reside around the State, the impact of UCR’s payroll spending is felt most strongly in the immediate vicinity of the campus.

UCR’s impact is concentrated in and near the City of Riverside due in part to household spending by employees who also live in the area. Employees who commute into Riverside also spend a portion of their income in the area on errands, meals and transportation. In the City of Riverside, in-commuter employee spending accounts for **\$28M of economic impacts**, or 11 percent of total impacts.

LOCAL GEOGRAPHY	NUMBER OF UNIVERSITY EMPLOYEES ¹	UNIVERSITY WAGES & BENEFITS
CITY OF RIVERSIDE	3,750	\$262 M
RIVERSIDE COUNTY ²	5,650	\$363 M
SAN BERNARDINO COUNTY	1,050	\$64 M
LOS ANGELES COUNTY	750	\$50 M
ORANGE COUNTY	400	\$32 M

¹ By location of employee residence and rounded to the nearest fifty. Does not include student workers.

² Includes City of Riverside.



POWERHOUSE: The University’s non-payroll expenditures are less concentrated than payroll spending, though a significant portion is retained in the local economy.

To fulfill its academic and research mission, the University purchases everything from dining hall utensils to agricultural pesticides. UCR purchased **63 percent of non-payroll expenditures within the State of California** in FY 15-16, with significant spending amounts of spending concentrated within the City and County of Riverside, as well as Los Angeles County.

LOCAL GEOGRAPHY	TOTAL UNIVERSITY EXPENDITURES
CITY OF RIVERSIDE	\$11.7 M
RIVERSIDE COUNTY ²	\$19.7 M
SAN BERNARDINO COUNTY	\$4.2 M
LOS ANGELES COUNTY	\$27.4 M
ORANGE COUNTY	\$5.4 M

¹ By location of employee residence.

² Includes City of Riverside.

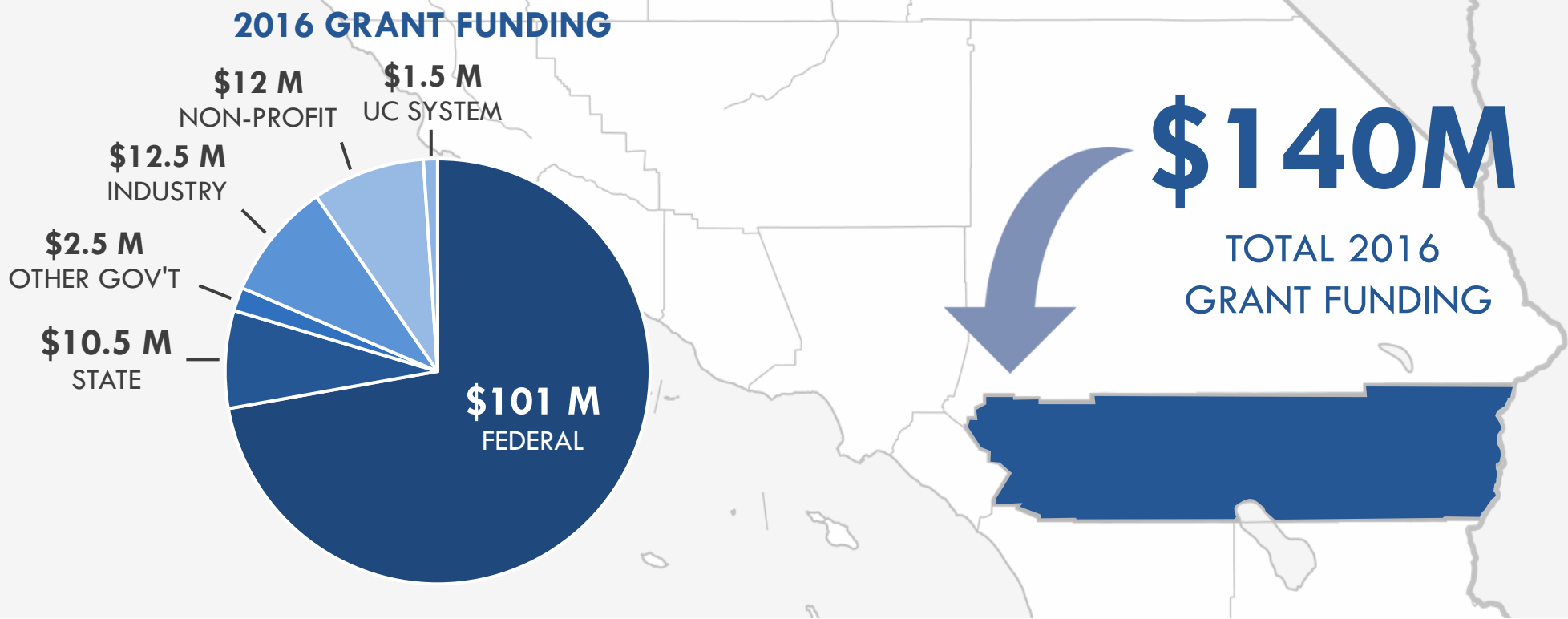


POWERHOUSE: The University is renowned in particular for its commitment to research at the intersection of agriculture, sustainability, and technology.

The University has contributed relevant, high-impact research since its inception. Specifically, UCR is heavily invested in agriculture and other natural sciences. This is not only recognized by UCR's industry partners, notably the citrus industry, but also by **\$71 million of annual award funding** to the College of Natural and Agricultural Sciences.

¹ University of California, Riverside

Research into sustainability and energy technology has evolved into a key focus of the University, as demonstrated by the success of CE-CERT. UCR faculty from various departments are developing solutions to **improve air quality** and **combat global climate change**, by identifying strategies to enable sustainable development and energy-efficient technologies. In FY 15-16, 46 faculty members received **\$23.2 million in active contracts and grants related to air quality research.**¹



POWERHOUSE: Extramural funding impacts not only research, but also the local and regional economy by bringing new dollars into the region.

Grant funding allows UCR's distinguished faculty to conduct research, answer complex local and global questions and to provide innovative solutions, while also generating wide-ranging economic impacts. UCR **secured \$140 million in total research funding** in 2016.¹

The University receives **most of its funding from Federal sources, totaling \$101 million** in FY 15-16.¹

Key Federal agency funders include:

- National Science Foundation: **\$30 million**
- Department of Health and Human Services: **\$24 million**
- Department of Agriculture: **\$13 million**
- Department of Defense: **\$12 million**
- Department of Energy: **\$9 million**

¹ University of California, Riverside

POWERHOUSE: The University's collaborations with industry pave the way to new ideas, spurring discovery, knowledge and future businesses.

Ten percent of UCR's research budget comes from industry, with **individual corporate collaborations reaching up to \$1.5 million underway.**¹ Key sources of funding come from prominent corporations, which fund targeted research.

UCR provides Proof of Concept grants of up to \$50,000 to qualified faculty who seek to commercialize their intellectual property. In addition, UCR hosts many showcase events for entrepreneurs to pitch their business ideas to the **Highlander Venture Fund**, a \$10 million fund which will provide start-up and seed capital to qualified opportunities generated at the University and the surrounding Riverside community.¹

¹ University of California, Riverside
HR&A Advisors, Inc.



\$12.5 M

TOTAL 2016
GRANT FUNDING FROM INDUSTRY

44%

INCREASE IN FUNDING FROM INDUSTRY
FROM 2015 TO 2016

POWERHOUSE: CE-CERT researchers bring together multiple disciplines to address pressing challenges in air quality, energy and transportation.

Established 25 years ago, CE-CERT is the largest self-supporting center on campus. In addition to \$15 million in endowments for students and faculty, **CE-CERT has \$18 million in active research projects.**¹ The Center's widely recognized research strengths were critical in securing the relocation of the Southern California Air Resources Board (CARB) research facility to Riverside.

CE-CERT's four primary research strengths include **renewable fuels, renewable electricity production, sustainable transportation** and **clean air**.

Through increasing collaboration with industry, CE-CERT strives to develop and use technology to advance sustainability. This work contributes to raising Riverside's national and international profile, including by **hosting high profile conferences**, such as the International Portable Emissions Measurements Systems conference and upcoming Renewable Natural Gas Symposium.

¹ University of California, Riverside



CE-CERT continues to be a leader in environmental technology research.¹

\$18 M ACTIVE CE-CERT RESEARCH CONTRACTS

73% INCREASE IN AWARDS FROM 2015-16

90 GREEN TECH INDUSTRY VISITS IN 2016

80 CURRENT INDUSTRY PARTNERS

27 INTERDISCIPLINARY FACULTY

90 STUDENTS INVOLVED IN FACULTY-LED RESEARCH

POWERHOUSE: The University of California, Riverside's collaboration with the California Air Resources Board will bring academic and economic benefit.

In 2016, UC Riverside led a collaborative effort to bring CARB's new **\$413 million** motor vehicle and engine emissions testing and research facility to campus.¹ Located on UCR's West Campus, this investment will complement UCR's existing centers, including CE-CERT (\$2.8 million of CE-CERT's grants are from CARB).¹

In addition to its direct economic impact, students will have unique internship, research and employment opportunities at CARB.¹ CARB staff will also have the ability to complete graduate level coursework at UCR on air quality and climate change.

UCR and CARB will have the opportunity to **develop joint research programs, and to share knowledge and equipment.** Existing research partnerships already underway include the BREATHE Center (Bridging Regional Ecology and Aerosolized Toxins to understand Health Effects), which aims to study the health impacts of changes in air quality.

¹ University of California, Riverside
HR&A Advisors, Inc.



NEW CARB RESEARCH FACILITY

+450

HIGH-PAYING JOBS

\$413M

FACILITY

18

ACRE SITE

POWERHOUSE: UCR’s academic strength and collaboration with industry catalyzes innovation that enriches lives globally.

From its inception as a citrus experimentation facility, UCR continues to create intellectual property with significant commercial value. As an indicator of this value, in 2016, UCR’s intellectual property was being used for commercial purposes as part of **168 total current active patents** and **208 active license agreements**.¹ This innovation is not just in agriculture, but increasingly is tied to **clean energy, entomology, and information technology**.

From 2015 to 2016, annual income from royalties to UCR intellectual property **increased by 22 percent to \$5 million**.¹ Agriculture-related intellectual property, such as the **Tango Mandarin**, the **Gold Nugget Mandarin**, and the **Avocado Selection “GEM”** account for over 90 percent of royalty income.

¹ University of California, Riverside
HR&A Advisors, Inc.



POWERHOUSE: With 4 million trees across the U.S., the Tango mandarin is an example of UCR's far-reaching impact on the world's agricultural industry.

Pioneered by Dr. Mikeal Roose and Dr. Timothy Williams, the Tango is an easy-to-peel, **seedless hybrid of a tangerine and mandarin orange, and has had wide commercial success** both in the U.S. and internationally. The plant has been successfully exported to countries in four other continents, with significant production occurring in Latin America, the Mediterranean, South Africa and China.¹

Through the University's Citrus Licensing program, Dr. Roose and Dr. Williams have bred and identified over **150 selections of citrus** as having potential that could lead to new varieties and have **patented seven of these in the US**. Currently, there are ten total patented varieties outside the U.S., with commercialization protections in over 25 countries.

¹ TangoFruit.es.



UCR'S SEEDLESS TANGO COMPARED TO A TRADITIONAL SEEDED MANDARIN





AN ACTIVE PARTNER IN THE REGION'S SUCCESS

PARTNERSHIP: UCR is preparing Riverside residents for a changing economy by building 21st century skillsets.

In the context of a constantly evolving economy, UCR provides programs that equip the surrounding region with employment skills that match industry needs. UCR Extension provides **students of all ages with continuing education programs** and offers corporate training and internships.

UCR partners with Riverside Unified School District (RUSD) to provide **CS for All**, a free hands-on programming experience for younger students. Another partnership with RUSD will locate a **STEM high school** on UCR's campus and provide access to college-level courses and laboratory experiences. UCR's School of Medicine also runs the **Medical Leaders of Tomorrow**, a free residential summer program for students from the Inland Southern California region. Similarly, through its **Health Sciences Partnership for Disadvantaged Student Development (HSP)**, UCR students provide mentorship to high school students on health careers.

¹ University of California, Riverside



UCR Extension provides continuing education courses and training.

29,000+ ANNUAL STUDENTS¹

2,933 INTERNATIONAL UCR EXTENSION STUDENTS¹



CS For All provides young children early training in computer science.

80 ANNUAL RUSD STUDENTS¹



UCR's medical school pipeline programs offer mentorship and exposure to health careers.

40+ ANNUAL STUDENTS



PARTNERSHIP: The University's School of Medicine (SOM) admitted its first class of students in 2013 to expand the region's physician workforce and improve the health of the Inland Empire.

In 2017, the School of Medicine's inaugural medical school class graduated (with a 100 percent residency match rate) and the school was **granted full accreditation** by the Liaison Committee on Medical Education (LCME). Currently, the SOM offers M.D. and Ph.D. programs in biomedical sciences, and in partnership with the School of Public Policy, the school offers a concurrent M.D./Master of Public Policy.

¹ UCR School of Medicine.

The SOM enrolls more than **200 medical students** and 21 biomedical science graduate students, and currently has **88 medical school residents** practicing in six specialties.¹ In addition to educating a diverse cohort of medical students, the school has developed programs to **provide innovative health care delivery programs**, is committed to collaborative and community-based research, and has created a number of topic-specific centers.

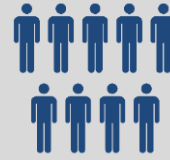
PARTNERSHIP: The University's SOM is committed to reducing healthcare disparities and expanding access to medical care.

The Inland Empire has approximately 70% of the number of physicians per capita as compared to the state average, making it the most medically underserved region in California.¹ UCR has developed several efforts to address this need. In particular, UCR's School of Medicine **provides 16 family medicine residents annually** to augment the number of physicians at Desert Regional Medical Center serving the Coachella Valley.¹ Similarly, a partnership between UCR medical students, the Lestonnac Free Clinic and the UC Riverside chapter of Global Medical Brigades **hosts a monthly clinic in San Bernardino.**

The SOM's Program for Improving Care of Aging Adults through Training and Education (PICATE) **enhances geriatric education, training and workforce development in Riverside University Health System,** and is funded by a \$2.5 million grant in partnership with UCLA and the Riverside County Department of Public Social Services.²

¹ California Health Care Foundation (2017)

² University of California, Riverside



Rapid population growth (50% by 2035) in the Inland Empire will strain existing resources.



UCR's School of Medicine will contribute to addressing the significant need for healthcare professionals.

3,000

CURRENT PHYSICIAN SHORTAGE²

5,000

PROJECTED 10-YEAR PHYSICIAN SHORTAGE²



UCR and the School of Medicine have partnerships with many local hospitals and health systems, including:



PARTNERSHIP: UCR also strengthens the social fabric of the region by providing community resources, including cultural programming and outdoor activities.

UCR provides opportunities for residents to spend time in the outdoors at the UCR Botanic Gardens, **a collection that covers 40 acres** on the east side of campus. The Botanic Gardens provide courses in biology, botany, ecology, entomology, landscape plants, morphology, and ornamental horticulture, and also hosts two annual native and drought-tolerant plant sales.¹

ARTSblock is a regional performing and visual arts center. Located in Riverside's downtown core, ARTSblock **celebrates local cultural, ethnic and artistic communities** and brings art, film and other performances to the Inland Empire. ARTSblock also provides **media workshops for Riverside youth and community members**, films, lectures and performances by distinguished artists, performers, filmmakers, writers, art historians, and humanities scholars.

¹ University of California, Riverside
HR&A Advisors, Inc.



UCR BOTANIC GARDENS



ARTSblock

PARTNERSHIP: UC Riverside facilitates community service, providing opportunities for its students to mentor and tutor disadvantaged youth.

In partnership with the Riverside Unified School District and City of Riverside, the University Eastside Community Collaborative provides **nearly 40,000 hours of service annually** through tutoring, mentoring, and community service with at-risk youth from Riverside's Eastside Community.

The Gluck Fellows Program of the Arts contributes arts presentations, performances and workshops to local schools, elder care facilities, and community centers.

UCR also provides numerous programs that offer **college readiness support to disadvantaged youth in the Inland Empire**, specifically giving low-income and first-generation high school students tools to succeed in high school and pursue higher education. Some featured programs include:

- Educational Talent Search (ETS)
- Upward Bound
- Early Academic Outreach Program



PARTNERSHIP: As a part of its expansion, the University has made direct investments in the City and County of Riverside.

The University is actively investing to grow its research capacity, industry collaboration and engagement with the community. The Multidisciplinary Research Building 1, to be complete by 2019, will provide 125,000 square feet of lab space for almost 60 researchers, including a 3,000-square foot wet lab incubator.

In 2017, UCR invested \$1.4 million to remodel and equip a **new medical facility in Downtown Riverside** at Citrus Tower.¹ The clinic has 11,000 square feet of space for examination and treatment rooms, offices, and conference areas to support an estimated **33,000 annual patients**.¹ The future UCR Outpatient Health Pavilion on University Avenue will provide clinical space, a student health clinical space and a retail pharmacy.¹

¹ University of California, Riverside
HR&A Advisors, Inc.

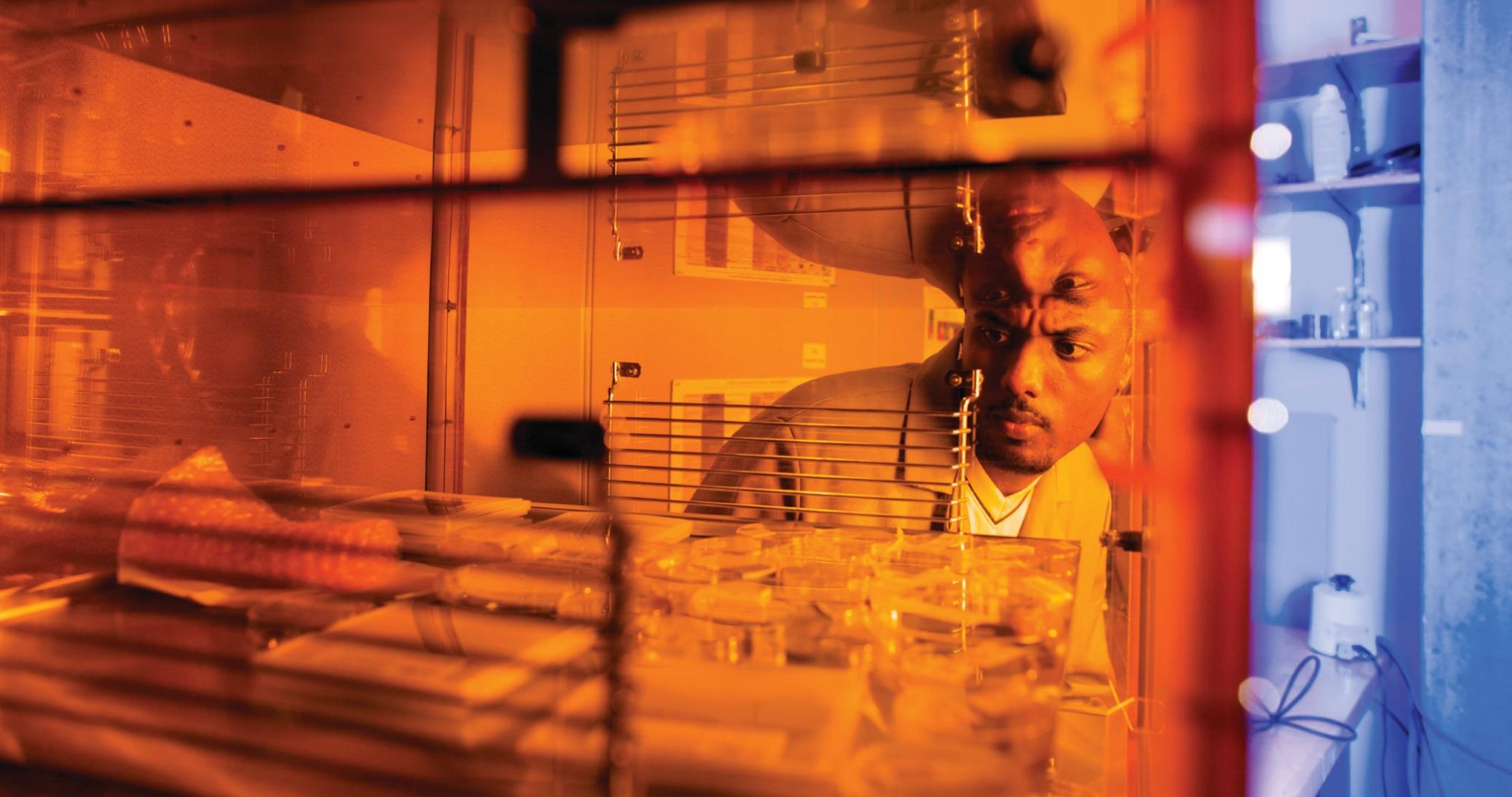
UPCOMING INVESTMENTS

150,000 SF

UCR OUTPATIENT HEALTH PAVILLION

\$150 M

MULTIDISCIPLINARY
RESEARCH BUILDING



TECHNICAL APPENDIX

Economic Impact Analysis: Methodological Approach

IMPLAN¹ is a widely-accepted model that HR&A and many others, including many public agencies, use to estimate the economic consequences of new investment in, or other changes to, a local or regional economy. It explicitly accounts for impact “leakage,” or the fact that not all economic impacts are necessarily experienced inside the geographic area under study. The IMPLAN model can be used to generate estimates of direct, indirect and induced employment, compensation (i.e., wages and benefits) and total economic output (i.e., a summary measure of all sales and spending), for annual operations of an entity as well as for construction and completed operations of a development project. “Employment” includes all individual full-time and part-time jobs, regardless of whether they are permanent or temporary (i.e., not full-time equivalents, or FTEs), and self-employed persons as well as wage and salary workers.

“Direct” impacts include the University’s operational budget (primarily wages and benefits to employees and pensioners

as well as non-labor expenditures), investment in on-campus construction, and retail sales, hotel revenues and other expenditures associated with off-site student and visitor spending. Therefore, the direct impacts occur either at the University (for on-site operations) or within a given geography (for off-site spending).

IMPLAN expresses output in producer prices, not consumer prices. Therefore “direct” (i.e., on-site) output is not always the same as “sales.” The IMPLAN conversion of sales to output for individual categories of retail sales means that retail is measured in terms of gross margin only (i.e., not including the manufacturing, transportation and wholesale costs associated with the sale price of retail goods).

For purposes of this analysis, all direct inputs which were incurred over parts of 2015 and 2016 were entered into IMPLAN as having occurred in 2016. Output results were reported in current 2017 dollars.

years. In 1992, IMPLAN was transferred under a technology transfer agreement to the Minnesota IMPLAN Group, Inc. (MIG), which was run by three of the key University of Minnesota staff members who worked on the original program and subsequently developed the current modeling system. In 2013, IMPLAN was purchased by MIG, Inc. and privatized.

¹ IMPLAN (IMpact Analysis for PLANning), a social accounting and impact analysis software program, was developed in 1979 by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency and the U.S. Bureau of Land Management to assist the Forest Service in land and resource planning and management. The program was updated and improved over subsequent

Economic Impact Analysis: Methodological Approach (continued)

“Indirect” impacts are those resulting from purchases of goods and services to support on-site University operations and construction and off-site student and visitor spending. This primarily includes goods and services purchased by supplier businesses to support their business operations resulting from the direct economic impact. Many of these impacts will occur within the analyzed geography, though some will leak out to other geographies.

“Induced” impacts result from household spending and purchases by the University’s direct and indirect employees for their household-related goods and services. The indirect and induced effects are together sometimes referred to as the “multiplier effect” of the direct impacts associated with annual operations.

University Operations

University Wage and Benefit Expenditures: Wages and benefits paid to employees were calculated at a ZIP-code level for each of the inclusive geographies and were run as a household income change at three income levels,

corresponding with the average wages and benefits for various position types at the University. In addition, for employees living outside of the City of Riverside, HR&A estimated what portion of their daily spending would occur within the City, based on estimates of office worker spending in suburban locations by the International Council of Shopping Centers. This calculation was also estimated for those living outside of Riverside County (for those commuting in from San Bernardino County and beyond), as well as for the Inland Empire and California. HR&A calculated these impacts for both full- and part-time UCR employees as well as “casual/restricted” student employees.

Other University Non-Wage Expenditures: HR&A followed guidelines developed by IMPLAN for an economic impact analysis related to State research universities, which utilizes the State Government – Education Institutional Spending Pattern.¹ After removing labor from the institutional spending pattern and renormalizing the coefficients, HR&A inputted the full expenditures for each inclusive geography at a local purchase percentage of 100 percent.

Economic Impact Analysis: Methodological Approach (continued)

Annual University Construction Expenditures: HR&A used UCR’s annual capital construction budget of \$23.5 million for FY 15-16 as an industry change in IMPLAN Sector 55, “Construction of new educational and vocational structures.” Given the location of the University’s construction projects, the direct economic impact was assumed to take place in the City of Riverside (and, therefore, to have occurred as a direct impact in all inclusive geographies).

Pensions: Wages and benefits paid to UCR retirees were calculated at a ZIP-code level for each of the inclusive geographies and were run as a household income change at an income level corresponding with the average retiree benefit. Pension benefits are included as part of the University’s operating budget and are therefore counted as an “on-site” economic impact.

Off-Site Economic Impact

Student Spending: HR&A used estimates of annual student expenditures provided by UCR. Based on on-campus/off-campus designation, undergraduate/graduate designation, and off-campus student home location, HR&A estimated the percentage of student expenditures that would be captured within each inclusive geography.

Visitor Spending: Using visitor data provided by UCR, HR&A categorized visitors as “partial-day,” “long-day” and “overnight” visitors, each with a different spending pattern. Based on a weighted proxy of alumni and student home locations, HR&A calculated a substitution for “net new” visitor spending for each inclusive geography.

¹ The university-specific IMPLAN tutorial can be found at http://support.implan.com/index.php?option=com_content&view=article&id=481.

Economic Impact Results: University Operations

	Direct On-Site ¹	Indirect	Induced	Total
City of Riverside				
Employment	12,388	132	2,625	15,145
Employee Compensation	\$553,478,047	\$5,134,526	\$86,797,093	\$645,409,666
Total Economic Output	\$684,158,529	\$20,100,592	\$304,833,301	\$1,009,092,422
Riverside County (including City)				
Employment	12,388	195	3,081	15,665
Employee Compensation	\$553,478,047	\$6,983,212	\$96,340,304	\$656,816,146
Total Economic Output	\$684,158,529	\$30,015,522	\$368,171,154	\$1,082,345,203
Inland Empire (including City and County)				
Employment	12,388	219	3,462	16,071
Employee Compensation	\$553,478,047	\$8,098,030	\$114,135,157	\$675,695,167
Total Economic Output	\$684,158,529	\$34,581,110	\$419,155,000	\$1,137,894,638
California (including City, County, and Inland Empire)				
Employment	12,388	574	5,049	18,004
Employee Compensation	\$553,478,047	\$31,665,112	\$237,375,842	\$822,819,021
Total Economic Output	\$684,158,529	\$117,265,067	\$818,287,728	\$1,619,711,323
United States (including all others above)				
Employment	12,388	1,080	8,439	21,905
Employee Compensation	\$553,478,047	\$53,715,594	\$377,744,238	\$984,791,152
Total Economic Output	\$684,158,529	\$220,681,501	\$1,415,618,236	\$2,320,458,264

¹ Direct employment, compensation and wages reflect a head count of all University positions (full- and part-time) as well as employment and compensation generated by construction projects.

Economic Impact Results: Off-Site Student and Visitor Spending

	Direct Off-Site	Indirect	Induced	Total
City of Riverside				
Employment	1,344	200	232	1,776
Employee Compensation	\$26,107,568	\$6,170,520	\$8,102,100	\$40,380,188
Total Economic Output	\$96,795,973	\$23,750,537	\$29,000,133	\$149,546,643
Riverside County (including City)				
Employment	1,611	263	271	2,144
Employee Compensation	\$30,957,684	\$7,388,480	\$8,659,833	\$47,005,996
Total Economic Output	\$117,963,473	\$30,072,999	\$33,545,371	\$181,581,842
Inland Empire (including City and County)				
Employment	1,931	302	305	2,537
Employee Compensation	\$36,378,724	\$8,765,368	\$10,165,574	\$55,309,666
Total Economic Output	\$139,411,917	\$34,004,464	\$37,686,143	\$211,102,524
California (including City, County, and Inland Empire)				
Employment	1,961	318	454	2,732
Employee Compensation	\$44,961,754	\$16,007,324	\$21,041,605	\$82,010,683
Total Economic Output	\$167,197,236	\$55,927,668	\$72,260,089	\$295,384,993
United States (including all others above)				
Employment	2,165	471	784	3,420
Employee Compensation	\$44,593,004	\$22,559,861	\$34,785,014	\$101,937,879
Total Economic Output	\$169,024,247	\$90,469,888	\$129,710,484	\$389,204,619

Detailed Economic Impact Results: City of Riverside

Impact Category ¹	Direct Impact	Indirect Impact	Induced Impact	Total Impact ²
University Operations				
University Payroll & Expenditures				
Employment	12,265	95	2,372	14,733
Employee Compensation	\$549,003,601	\$3,424,223	\$77,864,708	\$630,292,532
Total Economic Output	\$660,659,193	\$14,073,010	\$272,950,897	\$947,683,100
Annual Construction				
Employment	123	37	43	203
Employee Compensation	\$4,474,446	\$1,710,303	\$1,508,817	\$7,693,565
Total Economic Output	\$23,499,336	\$6,027,582	\$5,399,812	\$34,926,730
Pension Payments				
Employment	0	0	209	209
Employee Compensation	\$0	\$0	\$7,423,568	\$7,423,568
Total Economic Output	\$0	\$0	\$26,482,592	\$26,482,592
SUBTOTAL - UNIVERSITY OPERATIONS²				
Employment	12,388	132	2,625	15,145
Employee Compensation	\$553,478,047	\$5,134,526	\$86,797,093	\$645,409,666
Total Economic Output	\$684,158,529	\$20,100,592	\$304,833,301	\$1,009,092,422
Off-Site Student and Visitor Spending				
Student Spending				
Employment	1,240	189	215	1,644
Employee Compensation	\$23,981,329	\$5,789,900	\$7,523,833	\$37,295,062
Total Economic Output	\$90,652,498	\$22,305,359	\$26,931,192	\$139,889,049
Visitor Spending				
Employment	104	11	17	132
Employee Compensation	\$2,126,239	\$380,620	\$578,267	\$3,085,126
Total Economic Output	\$6,143,476	\$1,445,178	\$2,068,940	\$9,657,594
SUBTOTAL - OFF SITE SPENDING²				
Employment	1,344	200	232	1,776
Employee Compensation	\$26,107,568	\$6,170,520	\$8,102,100	\$40,380,188
Total Economic Output	\$96,795,973	\$23,750,537	\$29,000,133	\$149,546,643
TOTAL ANNUAL IMPACTS²				
Employment	13,732	332	2,856	16,921
Employee Compensation	\$579,585,615	\$11,305,046	\$94,899,193	\$685,789,854
Total Economic Output	\$780,954,502	\$43,851,130	\$333,833,433	\$1,158,639,065

¹ Employee Compensation and Total Economic Output values are stated in 2017 dollars.

² Totals may not sum precisely due to independent rounding.

Source: University of California, Riverside; IMPLAN; HR&A Advisors, Inc.

Detailed Economic Impact Results: Riverside County

(including City of Riverside)

Impact Category ¹	Direct Impact	Indirect Impact	Induced Impact	Total Impact ²
University Operations				
University Payroll & Expenditures				
Employment	12,265	163	2,754	15,182
Employee Compensation	\$549,003,601	\$5,575,268	\$85,793,974	\$640,372,843
Total Economic Output	\$660,659,193	\$25,103,491	\$327,396,338	\$1,013,159,022
Annual Construction				
Employment	123	32	40	197
Employee Compensation	\$4,474,446	\$1,407,944	\$1,291,383	\$7,188,355
Total Economic Output	\$23,499,336	\$4,912,031	\$5,001,802	\$33,413,167
Pension Payments				
Employment	0	0	287	287
Employee Compensation	\$0	\$0	\$9,254,947	\$9,254,947
Total Economic Output	\$0	\$0	\$35,773,014	\$35,773,014
SUBTOTAL - UNIVERSITY OPERATIONS²				
Employment	12,388	195	3,081	15,665
Employee Compensation	\$553,478,047	\$6,983,212	\$96,340,304	\$656,816,146
Total Economic Output	\$684,158,529	\$30,015,522	\$368,171,154	\$1,082,345,203
Off-Site Student and Visitor Spending				
Student Spending				
Employment	1,535	254	259	2,049
Employee Compensation	\$29,416,415	\$7,124,106	\$8,287,421	\$44,827,942
Total Economic Output	\$113,510,188	\$29,004,217	\$32,103,291	\$174,617,696
Visitor Spending				
Employment	75	9	12	96
Employee Compensation	\$1,541,269	\$264,374	\$372,412	\$2,178,055
Total Economic Output	\$4,453,284	\$1,068,782	\$1,442,080	\$6,964,146
SUBTOTAL - OFF SITE SPENDING²				
Employment	1,611	263	271	2,144
Employee Compensation	\$30,957,684	\$7,388,480	\$8,659,833	\$47,005,996
Total Economic Output	\$117,963,473	\$30,072,999	\$33,545,371	\$181,581,842
TOTAL ANNUAL IMPACTS²				
Employment	13,999	458	3,352	17,809
Employee Compensation	\$584,435,731	\$14,371,691	\$105,000,137	\$703,822,142
Total Economic Output	\$802,122,001	\$60,088,521	\$401,716,524	\$1,263,927,046

¹ Employee Compensation and Total Economic Output values are stated in 2017 dollars.

² Totals may not sum precisely due to independent rounding.

Source: University of California, Riverside; IMPLAN; HR&A Advisors, Inc.

Detailed Economic Impact Results: Inland Empire (Riverside and San Bernardino Counties) (including City of Riverside)

Impact Category ¹	Direct Impact	Indirect Impact	Induced Impact	Total Impact ²
University Operations				
University Payroll & Expenditures				
Employment	12,265	187	3,084	15,536
Employee Compensation	\$549,003,601	\$6,705,825	\$101,418,510	\$657,127,936
Total Economic Output	\$660,659,193	\$29,675,146	\$372,144,945	\$1,062,479,284
Annual Construction				
Employment	123	32	40	196
Employee Compensation	\$4,474,446	\$1,392,205	\$1,321,553	\$7,172,137
Total Economic Output	\$23,499,336	\$4,905,964	\$4,899,373	\$33,304,671
Pension Payments				
Employment	0	0	338	338
Employee Compensation	\$0	\$0	\$11,395,094	\$11,395,094
Total Economic Output	\$0	\$0	\$42,110,682	\$42,110,682
SUBTOTAL - UNIVERSITY OPERATIONS²				
Employment	12,388	219	3,462	16,071
Employee Compensation	\$553,478,047	\$8,098,030	\$114,135,157	\$675,695,167
Total Economic Output	\$684,158,529	\$34,581,110	\$419,155,000	\$1,137,894,638
Off-Site Student and Visitor Spending				
Student Spending				
Employment	1,882	297	298	2,476
Employee Compensation	\$35,415,161	\$8,602,058	\$9,931,893	\$53,949,112
Total Economic Output	\$136,637,275	\$33,369,632	\$36,820,173	\$206,827,080
Visitor Spending				
Employment	48	5	7	61
Employee Compensation	\$963,564	\$163,310	\$233,680	\$1,360,554
Total Economic Output	\$2,774,642	\$634,832	\$865,970	\$4,275,444
SUBTOTAL - OFF SITE SPENDING²				
Employment	1,931	302	305	2,537
Employee Compensation	\$36,378,724	\$8,765,368	\$10,165,574	\$55,309,666
Total Economic Output	\$139,411,917	\$34,004,464	\$37,686,143	\$211,102,524
TOTAL ANNUAL IMPACTS²				
Employment	14,318	521	3,767	18,608
Employee Compensation	\$589,856,771	\$16,863,397	\$124,300,731	\$731,004,832
Total Economic Output	\$823,570,446	\$68,585,573	\$456,841,143	\$1,348,997,161

¹ Employee Compensation and Total Economic Output values are stated in 2017 dollars.

² Totals may not sum precisely due to independent rounding.

Source: University of California, Riverside; IMPLAN; HR&A Advisors, Inc.

Detailed Economic Impact Results: State of California

(including City of Riverside and
Inland Empire Counties)

Impact Category ¹	Direct Impact	Indirect Impact	Induced Impact	Total Impact ²
University Operations				
University Payroll & Expenditures				
Employment	12,265	519	4,484	17,269
Employee Compensation	\$549,003,601	\$28,348,167	\$210,868,357	\$788,220,125
Total Economic Output	\$660,659,193	\$105,486,115	\$726,618,111	\$1,492,763,419
Annual Construction				
Employment	123	54	61	231
Employee Compensation	\$4,474,446	\$3,316,945	\$2,819,747	\$10,911,157
Total Economic Output	\$23,499,336	\$11,778,952	\$9,683,489	\$44,961,776
Pension Payments				
Employment	0	0	504	504
Employee Compensation	\$0	\$0	\$23,687,738	\$23,687,738
Total Economic Output	\$0	\$0	\$81,986,128	\$81,986,128
SUBTOTAL - UNIVERSITY OPERATIONS²				
Employment	12,388	574	5,049	18,004
Employee Compensation	\$553,478,047	\$31,665,112	\$237,375,842	\$822,819,021
Total Economic Output	\$684,158,529	\$117,265,067	\$818,287,728	\$1,619,711,323
Off-Site Student and Visitor Spending				
Student Spending				
Employment	1,959	317	453	2,730
Employee Compensation	\$44,933,694	\$15,998,357	\$21,029,652	\$81,961,704
Total Economic Output	\$167,121,649	\$55,896,733	\$72,219,043	\$295,237,425
Visitor Spending				
Employment	1	0	0	2
Employee Compensation	\$28,060	\$8,967	\$11,953	\$48,979
Total Economic Output	\$75,587	\$30,934	\$41,046	\$147,567
SUBTOTAL - OFF SITE SPENDING²				
Employment	1,961	318	454	2,732
Employee Compensation	\$44,961,754	\$16,007,324	\$21,041,605	\$82,010,683
Total Economic Output	\$167,197,236	\$55,927,668	\$72,260,089	\$295,384,993
TOTAL ANNUAL IMPACTS²				
Employment	14,348	891	5,503	20,736
Employee Compensation	\$598,439,801	\$47,672,436	\$258,417,447	\$904,829,704
Total Economic Output	\$851,355,765	\$173,192,735	\$890,547,817	\$1,915,096,315

¹ Employee Compensation and Total Economic Output values are stated in 2017 dollars.

² Totals may not sum precisely due to independent rounding.

Source: University of California, Riverside; IMPLAN; HR&A Advisors, Inc.

Detailed Economic Impact Results: United States

(including City of Riverside,
Inland Empire Counties and
State of California)

Impact Category ¹	Direct Impact	Indirect Impact	Induced Impact	Total Impact ²
University Operations				
University Payroll & Expenditures				
Employment	12,265	985	7,344	20,594
Employee Compensation	\$549,003,601	\$48,140,556	\$328,758,300	\$925,902,457
Total Economic Output	\$660,659,193	\$197,973,058	\$1,231,521,818	\$2,090,154,069
Annual Construction				
Employment	123	95	123	339
Employee Compensation	\$4,474,446	\$5,575,038	\$5,442,466	\$15,345,224
Total Economic Output	\$23,499,336	\$22,708,443	\$20,293,661	\$66,501,439
Pension Payments				
Employment	0	0	973	973
Employee Compensation	\$0	\$0	\$43,543,472	\$43,543,472
Total Economic Output	\$0	\$0	\$163,802,757	\$163,802,757
SUBTOTAL - UNIVERSITY OPERATIONS²				
Employment	12,388	1,080	8,439	21,905
Employee Compensation	\$553,478,047	\$53,715,594	\$377,744,238	\$984,791,152
Total Economic Output	\$684,158,529	\$220,681,501	\$1,415,618,236	\$2,320,458,264
Off-Site Student and Visitor Spending				
Student Spending				
Employment	2,165	471	784	3,420
Employee Compensation	\$44,593,004	\$22,559,861	\$34,785,014	\$101,937,879
Total Economic Output	\$169,024,247	\$90,469,888	\$129,710,484	\$389,204,619
Visitor Spending³				
Employment	0	0	0	0
Employee Compensation	\$0	\$0	\$0	\$0
Total Economic Output	\$0	\$0	\$0	\$0
SUBTOTAL - OFF SITE SPENDING²				
Employment	2,165	471	784	3,420
Employee Compensation	\$44,593,004	\$22,559,861	\$34,785,014	\$101,937,879
Total Economic Output	\$169,024,247	\$90,469,888	\$129,710,484	\$389,204,619
TOTAL ANNUAL IMPACTS²				
Employment	14,553	1,551	9,223	25,325
Employee Compensation	\$598,071,051	\$76,275,455	\$412,529,251	\$1,086,729,031
Total Economic Output	\$853,182,776	\$311,151,389	\$1,545,328,719	\$2,709,662,883

¹ Employee Compensation and Total Economic Output values are stated in 2017 dollars.

² Totals may not sum precisely due to independent rounding.

³ "Net new" spending to the United States economy is assumed to be negligible.

Source: University of California, Riverside; IMPLAN; HR&A Advisors, Inc.